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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,687	04/23/2001	Robert F. Tow	INT1P034	4379

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EXAMINER	
PESIN, BORIS M	

ART UNIT	PAPER NUMBER
2174	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/841,687	TOW ET AL.	
	Examiner	Art Unit	
	Boris Pesin	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,9-19,22-42 and 46-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,9-19,22-42 and 46-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This communication is responsive to the amendment filed 02/22/2005.

Claims 1-5, 9-19, 22-42 and 46-53 are pending in this application. Claims 1, 17, 24, 32, 35, and 38 are independent claims. In the amendment filed 02/22/2005, Claims 1, 17, 24, 32, 35, and 38 were amended and claims 8, 21, and 45 were canceled. This action is made Non-Final.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2, 6, 17, 24, 28, 32, 35, 38, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman et al. (US 6141693) in view of Horne (US 5473379) further in view of Wilcox et al. (US 6072542).

In regards to claim 1, Perlman teaches a method of identifying motion information associated with a compressed bit stream (i.e. the video processor uses the received auxiliary data to identify a portion of the at least one video frame, Abstract, Line 12). He further discloses a method for processing motion information to generate processed motion information (i.e, render a motion picture on a video display device, Column 8, Line 66). He further provides a method for providing the processed motion information to the client, wherein providing the processed motion information allows the client to identify video information in the bit stream (i.e. video stream to the client, Column 3, Line 50). Perlman does not teach a method that includes determining motion information coherence by dividing a magnitude of averaged motion vectors by an average magnitude of motion vectors, wherein a motion vector indicates a direction of motion included with the video information. Horne teaches, "In step 406 the common motion vector is calculated for the current frame. The common motion vector may be the average motion vector determined by dividing the motion vector total by the number of vectors, C, received for the frame, or in other words, MVT/C. Alternatively, the common motion vector may suitably be the median motion vector or some other value" Column 12, Line 65, Column 13, Line 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Perlman with the teachings of Horne and include a method for determining motion information coherence with the motivation

to enable compensation for greater amounts of motion (Horne, Column 2, Line 65). Perlman and Horne do not teach determining motion information magnitude. Wilcox teaches, "The first feature is the magnitude of the average of the nine motion vectors. The second feature is the average magnitude of the nine motion vectors." (Column 6, Line 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Perlman and Horne with the teachings of Wilcox to include a method for determining motion information magnitude with the motivation to provide for more accurate identification of video segments. (Column 2, Line 20).

In regards to claim 2, Perlman and Horne teach all the limitations of claim 1. Perlman further teaches that the compressed bit stream is an MPEG compressed bit stream. (Column 6, Line 59)

In regards to claim 17, it is in the same context as claim 1 and 2, except that it includes the capability of displaying the information in a graphical user interface. Perlman's invention discloses a graphical user interface. (Column 4, Line 44)

Claim 24 is in the same context as claim 1; it is therefore rejected under similar rationale.

Claim 28 is in the same context as claim 1; it is therefore rejected under similar rationale.

Claim 32 is in the same context as claim 1 and 2; it is therefore rejected under similar rationale.

Claim 35 is in the same context as claim 1 and 2; but it talks about computer code and a computer program. It is inherent in Perlman's invention that a computer program is used and therefore computer code is used.

Claim 38 is in the same context as claim 1 and 2, but it talks about the hardware aspects of the invention. Perlman discloses in his invention an interface (Column 7, Line 53), memory (Column 4, Line 5), and a CPU (Column 4, Line 4).

In regards to claim 42, Perlman discloses that you can store motion information in a database. (Column 1, Line 60)

Claim 43 is in the same context as claim 3; it is therefore rejected under similar rationale.

Claims 3, 18, 25, 33, 36, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman et al. (US 6141693) in view of Horne (US 5473379) further in view of Kuhn et al. (US 6297845).

In regards to claim 3, Perlman and Horne teach all the limitations of claim 1. Perlman and Horne do not teach the limitation of having color bars provided to the client with the motion information. Kuhn teaches that color bars are already used in an NTSC signal (Column 6, Line 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Kuhn and modify Perlman and Horne to include color bars with the motivation provided to increase the quality of information provided.

Claim 18 is in the same context as claim 3; it is therefore rejected under similar rationale.

Claim 25 is in the same context as claim 3; it is therefore rejected under similar rationale.

Claim 33 is in the same context as claim 3; it is therefore rejected under similar rationale.

Claim 36 is in the same context as claim 3; it is therefore rejected under similar rationale.

Claim 39 is in the same context as claim 3; it is therefore rejected under similar rationale.

Claims 4, 19, 26, 34, 37, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman et. al. (US 6141693) in view of Horne (US 5473379) in view of Wilcox et al. (US 6072542) further in view of Yim (US 6452969).

In regards to claim 4, Perlman, Horne, and Wilcox teach all the limitations of claim 1. Perlman, Horne, and Wilcox do not teach that processed information is represented using hue, brightness, and saturation. Yim teaches, "the trichromatic theory of color vision implies that the perceived intensity of light which is made up of brightness, hue and saturation may be duplicated by an appropriate combination of three primary colors. Accordingly, each video frame may be represented by a grid of first primary color pels, second primary color pels, and third primary color pels." (Column 4, Line 52). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Yim and modify Perlman, Horne, and

Wilcox to include a method for representing the video with hue, brightness, and saturation with the motivation provided for reducing the cost of the system (Yim, Column 2, Line 28).

Claim 19 is in the same context as claim 4; it is therefore rejected under similar rationale.

Claim 26 is in the same context as claim 4; it is therefore rejected under similar rationale.

Claim 34 is in the same context as claim 4; it is therefore rejected under similar rationale.

Claim 37 is in the same context as claim 4; it is therefore rejected under similar rationale.

Claim 40 is in the same context as claim 4; it is therefore rejected under similar rationale.

Claims 5, 27, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman et. al. (US 6141693) in view of Horne (US 5473379) in view of Wilcox et al. (US 6072542) further in view of Richmond et al. (US 5805156).

In regards to claim 5, Perlman, Horne, and Wilcox teaches all the limitations of claim 1. Perlman, Horne, and Wilcox do not teach the method of representing processed motion using an alarm. Richmond teaches, "In another scenario, the gateway computer system ... transmits an alert to a client computer system, wherein the user does not desire to immediately view the select media stream. The alert may

consist of any audio/visual alarm." (Column 8, Line 42). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Perlman, Horne, and Wilcox with the teachings of Richmond for the purpose of representing the feed using an alarm with the motivation to provide for making the system more informative for the user.

Claim 27 is in the same context as claim 5; it is therefore rejected under similar rationale.

Claim 41 is in the same context as claim 5; it is therefore rejected under similar rationale.

Claims 9, 10, 22, 23, 46, 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman et al. (US 6141693) in view of Horne (US 5473379) in view of Wilcox et al. (US 6072542) further in view of Etoh (US 6081551).

In regards to claim 9, Perlman, Horne, and Wilcox teach all the limitations of claim 1. Perlman, Horne, and Wilcox do not teach the limitation of comparing motion information in the bit stream with a motion information template. Etoh teaches, "...if it is judged by the correlation comparator ... that there is high correlation between the input image and the template, then the weighted motion compensator ... is selected, and pixels for the associated weighted region are input from the template" (Column 8, Line 39). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Perlman, Horne, and Wilcox using the teachings of Etoh to include a

way to compare motion in a bit stream (i.e. input image) to that of a template with the motivation to provide for a sharper image quality. (Column 2, Line 55).

In regards to claim 10, Etoh teaches, "...if it is judged by the correlation comparator ... that there is high correlation between the input image and the template, then the weighted motion compensator ... is selected, and pixels for the associated weighted region are input from the template" (Column 8, Line 39).

Claim 22 is in the same context as claim 9; it is therefore rejected under similar rationale.

Claim 23 is in the same context as claim 10; it is therefore rejected under similar rationale.

Claim 46 is in the same context as claim 9; it is therefore rejected under similar rationale.

Claim 47 is in the same context as claim 10; it is therefore rejected under similar rationale.

Claims 11, 12, 30, 48, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman et. al. (US 6141693) in view of Horne (US 5473379) in view of Wilcox et al. (US 6072542) further in view of Rao et al. (US 6041142).

In regards to claim 11, Perlman, Horne, and Wilcox teach all the limitations of claim 1. They do not teach the limitation of identifying a scene cut using processed motion information. Rao teaches that in his invention, "The video data stream analyzer detects, i.e., identifies, a scene cut in a video data stream" (Column 7, Line 58). It

would have been obvious to one of ordinary skill in the art at the time of the invention to modify Perlman, Horne, and Wilcox with the teachings of Rao to include a method for identifying a scene cut with the motivation for faster transmition of the video feed.

In regards to claim 12, Rao discloses a display, (i.e. client, Figure 3, Element 130), that receives all of the processed information including the scene cut information.

Claim 30 is in the same context as claim 11; it is therefore rejected under similar rationale.

Claim 48 is in the same context as claim 11; it is therefore rejected under similar rationale.

Claim 49 is in the same context as claim 12; it is therefore rejected under similar rationale.

Claims 13, 14, 29, 50, 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman et al. (US 6141693) in view of Horne (US 5473379) in view of Wilcox et al. (US 6072542) further in view of Wang et al. (US 6212657).

In regards to claim 13, Perlman, Horne, and Wilcox teach all the limitations of claim 1. Perlman and Horne do not teach the limitation of identifying audio information from the compressed bit stream. Wang teaches "It should be understood that . . . . the term "video" includes content having both audio and visual portions or exclusively audio or exclusively visual content, as well as other types of digital content."(Column 1, Line 35). He further teaches that "In one embodiment [of his invention], the processing modules are video decoders, each dedicated to decompressing a video data stream."

(Column 3, Line 35). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Perlman, Horne, and Wilcox with the teachings of Wang to include a method for identifying audio data with the motivation provided for transmitting sound.

In regards to claim 14, Wang teaches, "Video processors . . . receive video data (that form a video stream) from memory buffer . . . under the control of CPU . . . and then process each video stream for delivery to a client . . ." (Column 8, Line 20).

Claim 29 is in the same context as claim 13; it is therefore rejected under similar rationale.

Claim 50 is in the same context as claim 13; it is therefore rejected under similar rationale.

Claim 51 is in the same context as claim 14; it is therefore rejected under similar rationale.

Response to Arguments

Applicant's arguments filed 02/22/2005 have been fully considered but they are not persuasive.

In regards to the Applicant's argument that Horne does not teach a coherence value that is a scalar value, the Examiner points out that the claim limitations do not include language that indicate the coherence value is scalar.

Furthermore, the Applicant does not address the Wilcox reference, as applied to claim 8 in the final rejection, in regards to the limitation "determining motion information magnitude based at least in part on the average magnitude of motion vectors."

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Pesin whose telephone number is (571) 272-4070. The examiner can normally be reached on Monday-Friday except every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BP

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